Streams/Rivers Interim Value to Protect Recreation Uses

As discussed in our responsive comments, EPA supports the Division's proposal to adopt a benthic chlorophyll criterion of 150 mg/m^2 as a criterion to protect recreation uses of rivers and streams in Colorado.[1] We believe the Division's proposed interim value is well supported and can be refined as new data and information become available.

Aesthetic Considerations

In their responsive comments, Metro Wastewater Reclamation District (MWRD) expressed concern that adopting the proposed interim value would be inconsistent with how recreation uses are defined. MWRD's comments included the following:

> "The Metro District agrees that aesthetics play a vital role in the recreational experience in Colorado and that the visual appearance of a stream can, to some extent, influence the recreational experience that occurs on rivers and streams in Colorado. The District also understands the need to protect the recreation use. However, the proposed criteria should be consistent with the existing recreation classification set forth in section 31.13(1)(a) which is based on primary contact, not aesthetics. Specifically, the primary contact use is risk-based to protect human health." MWRD RPHS, page 16.

We disagree with MWRD. Our view is that interim values adopted to protect Colorado's recreation classifications are appropriately based on describing water quality conditions that support those uses. Regarding recreation, the appropriate considerations go beyond just human health considerations related to bacterial contamination. For example, the Commission has adopted table value standards for pH and dissolved oxygen to support recreation uses. These values clearly are not related to bacterial contamination. If periphyton growth in a river or stream discourages recreation because of its appearance, or because the rocks are too slippery, it is appropriate to adopt interim values based on those concerns so that recreation uses can be supported.

We also note that the slimy/slippery aspect is more than just aesthetics, it ~~can~~ is clearly perceived as ~~also be~~ a safety issue and a direct impact to the main forms of river recreation: fishing and swimming. Montana's user perception survey[2] captured ~~this~~ these concerns, and a variety of other user concerns in ~~written~~documented oral comments received from survey respondents:

- 33% stated that fishing was affected (e.g., snags lures, etc.)

Commented [MS1]: It might be worth citing EPA's 1972 Blue Book, page 11-12. There, the basic group of 'free from" standards are given, including this one: "substances and conditions or combinations thereof which produce undesirable aquatic life".

Since the numeric nutrient standards are, in part, a translation of this narrative (which we have on the books and Colorado surely does as well), then it is not unreasonable that some element of aesthetics be incorporated into the recreation standard, and, ergo, into the numeric nutrient standards.

Commented [MS2]: Usually I think of pH and DO as directly linking to aquatic life use.

Not familiar with these rules — how do they relate pH and DO to rec use? Via the support of a fishery for recreational purposes? Might be worth an additional sentence to clarify.

Commented [MS3]: Here you have an opportunity to invoke the fishable swimmable element of the CWA if you choose to elaborate.

[1] See pages 15 - 17 of Enclosure 1 in our responsive comments.

[2] Suplee et al. 2009. How green is too green? Public opinion of what constitutes undesirable algal levels in streams. Journal of the American Water Resources Association 43: 123-140.

- 23% indicated wading impacts (e.g., slippery, dangerous, and would wrap around legs)
- 11% cited swimming interference (e.g., looks unsuitable and would get entangled)
- 11% stated strictly aesthetic reasons
- 2% stated boating interference (e.g., entangles paddles)
- 20% had comments not readily classified into the aforementioned groups